

2818 IFW

Attorney Docket SEL 283



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Re Application of)
FUJIMOTO et al.)
Serial No.: 10/017,114)
Filed: October 24, 2001)
For: Semiconductor Device And Method)
Of Manufacturing The Same)
Art Unit: 2818)
Examiner: P. Dang)

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October 4, 2004

(Date of Deposit)

Shannon Wallace

Name of applicant, assignee, or Registered Rep.

Shannon Wallace 10/4/04

Signature

Date

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

RESPONSE B

Sir:

Applicants have the following response to the Office Action dated July 2, 2004.

Applicants will address each of the Examiner's rejections in the order in which they appear in the Office Action.

Claim Rejections - 35 USC §103

Rejection Over Sakama and Zamazaki

In the Office Action, the Examiner rejects Claims 1-9, 11-19, 21, 24-26, 28-36, 38, 40-48 and 50 under 35 USC §103 as being unpatentable over Sakama et al. in view of Zamazaki [sic Yamazaki]. This rejection is respectfully traversed.

More specifically, in the Office Action, the Examiner alleges that Sakama discloses all of the limitations of Claims 1, 2 and 6 but does not disclose an impurity region having a

concentration distribution in which an impurity concentration is continuously increased with distance from the channel forming region in a channel length direction, as recited in the claims of the present application. The Examiner cites Yamazaki as allegedly showing this feature. Applicants respectfully disagree with this position by the Examiner.

For example, with regard to Claim 2, Sakama does not disclose offset regions but instead discloses second impurity regions (LDD regions) 166a, 167a, 172a, 173a, 174a and 175a. As explained in the specification of this reference, regions 112, 113, 114, 115 and 116 are added with phosphorus (1×10^{18} atoms/cm³) as shown in Fig. 6B of Sakama to obtain regions 166a, 167a, 172a, 173a, 174a and 175. Hence, these regions in Sakama's TFTs are not offset regions, and the cited references do not disclose or suggest the claimed invention.

With regard to Yamazaki, Applicants also disagree with the Examiner's characterization of the teachings in the reference. For example, the first and second impurity regions in claim 72 of Yamazaki (the Examiner cites the claims in support of his rejection) are included in a first channel region in an n-type transistor and a second channel region in a p-type transistor, respectively, in order to utilize pinning effects, as shown in Figs. 1A, 1C, 4A-4C and 8A-8C of the reference. This is different than the claimed invention of the present application. Moreover, Applicants do not believe that Yamazaki teaches that the impurity regions have any impurity concentration distribution, as recited in the claims of the present application.

Hence, even if Yamazaki could be arguably combined with Sakama (which Applicants do not at this time admit is proper), the combination would still not disclose or suggest the claimed invention as the cited references do not teach or suggest the claimed feature that the impurity region has a concentration distribution in which an impurity concentration is continuously increased with distance from the channel forming region in a channel length direction.

Therefore, for at least the above-stated reasons, the rejected claims are patentable over the cited references. Accordingly, it is respectfully requested that this rejection be withdrawn.

Rejection Over Sakama In View of Zamazaki and Hashimoto

The Examiner also rejects Claims 10, 27 and 39 under 35 USC §103 as being unpatentable over Sakama et al. in view of Zamazaki [sic Yamazaki] and further in view of Hashimoto et al. This rejection is respectfully traversed

For at least the reasons explained above for the independent claims, these dependent claims are also patentable over the cited references. Accordingly, it is respectfully requested that this rejection be withdrawn.

Information Disclosure Statement

Applicants filed an Information Disclosure Statement on May 26, 2004. The Examiner has not included an initialed copy of the 1449 form from that IDS with the Office Action. Therefore, it is respectfully requested that this IDS be entered and considered before any further action is entered in this application.

Conclusion

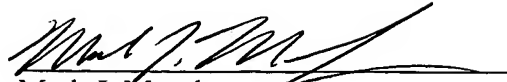
It is respectfully submitted that the present application is in a condition for allowance and should be allowed.

If any fee is due for this amendment, please charge our deposit account 50/1039.

Favorable reconsideration is earnestly solicited.

Respectfully submitted,

Date: October 4 2004


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